

SUMMARY (Abstract)

DNA FRAGMENTS OF THE METHYLOTROPHIC *Pichia pastoris* YEAST *ICL* GENE.

This invention relates to the field of recombinant DNA technology. The present invention relates to the isolation of a new DNA regulatory region, able to lead the expression of heterologous proteins in *Pichia pastoris*.

In one of its aspects the invention is related to the isolation of a DNA fragment that contains the isocitrate lyase encoding gene (referred here as *ICL*) from the yeast *Pichia pastoris*. In another aspects, this invention describes the use of a fragment derived from the described gene, which lead the expression of a foreign gene, when both are incorporated in a DNA vector and introduced in the host yeast *Pichia pastoris*. In this way the protein of interest is efficiently produced using this DNA fragment.

In the yeast *Pichia pastoris* the expression of this gene is regulated in response to environmental conditions, such as the growth medium composition. The *ICL* expression is repressed when a carbon source like glucose is used, and induced when the carbon source present in the medium is ethanol or when the glucose is absent.

An additional aspect, we have also isolated a novel DNA fragment consisting essentially of the *Pichia pastoris ICL* 3' transcription termination sequence.